



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,026	12/21/2005	Rommer Stefan	P17753-US1	1372
27045	7590	11/19/2009	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			CHAMBERS, TANGELA T	
			ART UNIT	PAPER NUMBER
			2617	
			MAIL DATE	DELIVERY MODE
			11/19/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,026	Applicant(s) STEFAN, ROMMER	
	Examiner TANGELA T. CHAMBERS	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment and arguments filed on 8/24/2009.
 - (a) Claims 1-8 are rejected.

Response to the Arguments

2. The applicant's arguments filed on 8/24/2009 have been fully considered, but they are not persuasive. In the Remarks, the applicant has argued in substance:

(1) The applicant argued features, ie. a network with at least one access point and one access controlling node, the access points making use of Inter-Access Point Protocol for communication. The mobile station associates with the access points upon approval of its identity by the access controlling node. Said access controlling node monitors whether the mobile station has access to any of the access points and monitors an account related to the mobile station. If it detected that the account has a zero balance, an IAPP message is issued causing the mobile station to be terminated from the access point it is associated.

Response:

- (1) The argued features read upon Luo in view of Fascenda.

Luo discusses a wireless local area network (WLAN) containing access points that use Inter-Access Point Protocol (IAPP) for communication and mobility access points (MAP) for controlling access to the WLAN. Thus Luo shows the limitation of "a network comprising at least one access point (AP) and one access controlling node, the access points making use of the Inter-Access Point Protocol (IAPP) for communication".

Luo discusses a mobile station associating with an access point and being automatically authenticated to the network. Thus Luo shows the limitation of "wherein at least one mobile station may associate with the access points wherein the identity of the mobile station can be approved by the access controlling node".

Luo discusses every access point maintaining a mobile state table to keep track of mobiles that are or have been associated with it. Thus Luo shows the limitation of “the access controlling node monitors whether a given mobile station has access to any of a given subset of access points”.

Luo discusses the MAP validating a mobile station’s account information periodically to determine if the mobile station is allowed to communicate with a given access point. Thus Luo shows the limitation of “the access controlling node monitors an account relating to the given mobile station associated with a given access point of the subset of access points”.

Luo discusses the MAP using IAPP signaling to send messages. Thus Luo shows the limitation of “the at least one access-controlling node issues at least one IAPP message”.

Luo discusses validating and making payments to an account related to a mobile device but did not specifically disclose detecting that the account has a balance of zero and terminating access for the mobile station. Thus Luo is modified with Fascenda to show such features were obvious in the art at the time of the invention. Fascenda teaches sending a message instructing an access point to deny access to a mobile station when the mobile station’s balance has been met or is exhausted.

(2) In response to the applicant’s argument that the references are not combinable, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

(3) In response to applicant’s argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

Art Unit: 2617

references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion to combine the references was shown in the background of the secondary references.

As a result the argued features are shown by Luo in view of Fascenda and read upon the references as follows:

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent Publication No. 2003/0169713 A1), in view of Fascenda (US Patent Publication No. 2004/0073672 A1).

As per claims 1, 7 and 8, Luo discloses:

- ***A network comprising at least one access point (AP)***, (Luo, Abstract and Paragraph [0018], “[T]he mobile host always owns a fixed IP address as it moves from one access point to another in the WLAN, and the air traffic between the mobile host and the WLAN is encrypted.”).
- ***one access controlling node***, (Luo, Paragraphs [0019] and [0021], “MAPs 102 are responsible for implementing access control for WLANs, and for providing mobility support for mobile hosts.”).

- ***the access points making use of the Inter-Access Point Protocol (IAPP) for communication***, (Luo, Paragraphs [0003] and [0019], “The intra-subnet mobility is supported using IAPP.”).
- ***wherein at least one mobile station may associate with the access points***, (Luo, Paragraphs [0022]-[0026], “Every access point maintains a mobile state table 118 for the mobile hosts that are associating with it or had previously associated with it within a specified time interval.”).
- ***wherein the identity of the mobile station can be approved by the access controlling node***, (Luo, Paragraph [0047], “When a mobile host successfully associates with an MAP ... the MAP resolves the mobile host's IP address to authenticate the mobile host[.]”).
- ***the access controlling node monitors whether a given mobile station has access to any of a given subset of access points***, (Luo, Paragraphs [0021]-[0022], [0024]-[0026] and [0047]-[0048], “Every MAP needs to process four link-layer events: the association of a mobile host, the de-association of a mobile host, the arrival of an inbound frame sent to a mobile host or the MAP itself, and the arrival of an outbound frame sent from a mobile host.”), Luo teaches the MAP monitoring whether or not a mobile station is associated with access points in its subnet.
- ***the access controlling node monitors an account relating to the given mobile station associated with a given access point of the subset of access points***, (Luo, Paragraphs [0018], [0021]-[0023], [0035] and [0043]-[0044], “[T]he MAP sends ... a MOBILE STATE REQUEST message to the Web authentication server using the mobile host's MAC address as the index.”), Luo teaches the mobile station submits its authentication credentials (account information) to be validated, and the MAP requests the mobile station's information to determine if the account is “normal”, “limited” or “blocked”.
- ***the at least one access-controlling node issues at least one IAPP message***, (Luo, Paragraphs [0005], [0035] and [0051], “[T]he MAP sends an IAPP announcement message to the default gateway router of the WLAN and then sends a MOBILE STATE

Art Unit: 2617

REQUEST message to the Web authentication server using the mobile host's MAC address as the index.”).

Luo teaches an access controlling node authenticating and monitoring a mobile station's account and issuing IAPP messages, but does not specifically disclose the following limitations. However, Fascenda in an analogous art discloses:

- ***if detecting that the account relating to the given mobile station has a balance of zero***, (Fascenda, Fig. 4B-4C and Paragraphs [0015] and [0042]-[0045], “If any of the network access parameters have been met or exceeded, access to the network is denied.”), Fascenda teaches checking account information to see if a usage parameter (balance) has been exhausted.
- ***causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station***, (Fascenda, Paragraphs [0045] and [0049]-[0050], “The usage application then instructs (step 540) the NIC driver to send an encrypted TCP/IP packet to the access point 220 informing it that all further TCP/IP traffic from the user must be restricted to web based HTTP requests, e.g., via port 80, and that no user packets are allowed past the access point except for HTTP requests and those will be redirected to the network billing website.”), Fascenda teaches an access point receiving a message and terminating access for a mobile station.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fascenda into the teaching of Luo to monitor a mobile station's account and terminate access to the account when there is a zero balance. The modification would be obvious because one of ordinary skill in the art would want the benefit of making network usage tracking and enforcement simple and automatic. (Fascenda, Paragraph [0014]).

As per claim 2, Luo further discloses:

Art Unit: 2617

- **wherein the access-controlling node is an authentication server connected to the Internet**, (Luo, Paragraphs [0019]-[0021], "A MAP can be a piece of stand-alone equipment deployed behind a regular WLAN access point or a group of WLAN access points, or it can be built as an enhanced WLAN access point[.]").

As per claim 3, Luo further discloses:

- **wherein a second access control node is provided, the second access control node being a gateway node**, (Luo, Paragraphs [0035] and [0051]-[0052], "The MAP encapsulates the frame into an IP packet with the MAP's IP address as source IP address and the care-of IP address as destination IP address. The MAP sends this IP packet to the default gateway on this subnet.").

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent Publication No. 2003/0169713 A1), in view of Fascenda (US Patent Publication No. 2004/0073672 A1), and in further view of Jeong et al (Jeong) (US Patent Publication No. 2006/0092888 A1).

As per claims 4-5, Luo teaches an access controlling node issuing IAPP messages but does not specifically disclose:

- **wherein the access-controlling node issues an IAPP ADD-notify message, and an IAPP MOVE-notify message**, However, Jeong in an analogous art discloses the limitation. (Jeong, Paragraphs [0042]-[0043], "[U]pon receipt of a Probe Request for Proxy frame, current AP sends a Proxy Probe Request packet to neighboring APs. ... Proxy Probe Request packet has the fields filled in accordance with Table 5."), Jeong teaches a Proxy Probe Request packet containing IAPP commands such as "ADD-notify" and "MOVE-notify".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Jeong into the network of Luo and Fascenda to issue IAPP add notify and move notify messages. The modification

Art Unit: 2617

would be obvious because one of ordinary skill in the art would want the benefit of achieving a scanning method for wireless networks with smaller latency. (Jeong, Paragraph [0008]).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent Publication No. 2003/0169713 A1), in view of Fascenda (US Patent Publication No. 2004/0073672 A1), and in further view of Prasad et al (Prasad) (US Patent No. 7,197,125 B1).

As per claim 6, Luo teaches an access controlling node issuing IAPP messages to a gateway router but does not specifically disclose:

- ***wherein the access-controlling node issues a Lock out request to the gateway node***, However, Prasad in an analogous art discloses the limitation. (Prasad, Column 10, Lines 44-58, "The authentication server performs the authentication and returns either an ACCESS ACCEPT (if authentication succeeds) or an ACCESS REJECT (if the authentication fails). If the authentication fails then the service selection gateway sends an appropriate error message to the client and the processing stops."), Prasad teaches the authentication server sending a lock out (reject) message to the gateway node.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Prasad into the network of Luo and Fascenda to issue a lock out request to the gateway node. The modification would be obvious because one of ordinary skill in the art would want to prevent unauthorized users from gaining access to the network. (Prasad, Abstract).

Conclusion

4. The prior art considered pertinent to applicant's disclosure is made of record and listed on form PTO-892.

THIS ACTION IS MADE FINAL. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **TANGELA T. CHAMBERS** whose telephone number is 571-270-3168. The examiner can normally be reached Monday through Thursday, 10:00am-6:30pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro, can be reached at telephone number 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tangela T. Chambers/
Patent Examiner, Art Unit 2617

/NICK CORSARO/

Application/Control Number: 10/595,026

Page 10

Art Unit: 2617

Supervisory Patent Examiner, Art Unit 2617